

## FIGURE 1A

EXON	BAC Start	BAC Stop	cDNA Start	cDNA Stop	Exon Length	
1	83294	83455	1	162	162	poly A signal is position 111614-111619
2	89834	89986	163	314	152	
3	90696	90839	315	458	144	translation start (ATG) is:
4	93419	93594	459	634	176	cDNA: 92
5	96509	96665	635	791	157	Gene: 83385
6	96983	97300	792	1109	318	
7	103044	103142	1110	1208	99	
8	104413	104515	1209	1311	103	
9	106494	106702	1312	1520	209	
10	110048	110141	1521	1614	94	
11	110592	111633	1615	2656	1042	

FIGURE 1B

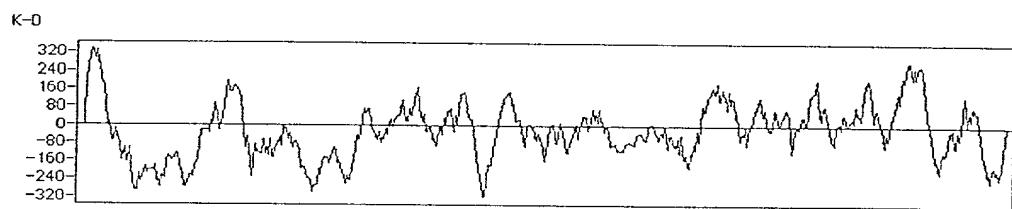


FIGURE 1C

rat	ATGGAAAGTC	TCTGCGGGGT	CCTGGTATTT	CTGCTGCTGG	CTGCAGGACT	GCCGCTCCAG	GCGGCCAAGC	GGTTC	75
mouse	ATGGAAAGTC	TCTGCGGGGT	CCTGGGATTT	CTGCTGCTGG	CTGCAGGACT	GCCTCTCCAG	GCTGCCAAGC	GATTT	75
human	ATGGAATGTC	TCTACTATTT	CCTGGGATTT	CTGCTCCTGG	CTGCAAGATT	GCCACTTGAT	GCCGCCAAAC	GATTT	75
rat	CGTATGTGC	TGGGCCATGA	GCAGTATCCG	GATCACATGA	GGGAGAACAA	CCAATTACGT	GGCTGGTCTT	CAGAT	150
mouse	CGTATGTGC	TGGGCCATGA	ACAGTATCCC	GATCACATGA	GAGAGCACAA	CCAATTACGT	GGCTGGTCTT	CGGAT	150
human	CATGATGTGC	TGGGCAATGA	AAGACCTTCT	GCTTACATGA	GGGAGCACAA	TCAATTAAAT	GGCTGGTCTT	CTGAT	150
rat	GAAAATGAAT	GGGATGAACA	GCTGTATCCA	GTGTGGAGGA	GGGGAGAGGG	CAGATGGAAG	GACTCCTGGG	AAGGA	225
mouse	GAAAATGAAT	GGGATGAACA	CCTGTATCCA	GTGTGGAGGA	GGGGAGACGG	CAGGTGGAAG	GACTCCTGGG	AAGGA	225
human	GAAAATGACT	GGAATGAAAA	ACTCTACCCA	GTGTGGAAGC	GGGGAGACAT	GAGGTGGAAA	AACTCCTGGA	AGGGA	225
rat	GGCCGTGTGC	AGGCAGCCT	AACCAGTGT	TCACCGGCCT	TGGTGGGTT	CAATATCACC	TTCGTAGTGA	ACCTG	300
mouse	GGCCGTGTGC	AGGCAGCCT	GACCACTGAC	TCACCGGCTC	TGGTGGGTT	CAATATCACC	TTTGTGGTGA	ACCTG	300
human	GGCCGTGTGC	AGGCAGCCT	GACCACTGAC	TCACCAAGCCC	TGGTGGGCTC	AAATATAACA	TTTGCGGTGA	ACCTG	300
rat	GTGTTCCCCA	GATGCCAGAA	GGAAAGATGCC	AACGGCAATA	TCGTCTATGA	GAGGAACACTGC	AGAAAGTATT	TGGAG	375
mouse	GTGTTCCCCA	GATGCCAGAA	GGAAAGATGCT	AATGGCAATA	TCGTCTATGA	GAAGAACACTGC	AGGAATGATT	TGGGA	375
human	ATATTCCCTA	GATGCCAAAA	GGAAAGATGCC	AATGGCAACA	TAGTCTATGA	GAAGAACACTGC	AGAAATGAGG	CTGGT	375
rat	CTGGCTTCTG	ACCCGTATGT	CTACAACCTGG	ACACACAGGGG	CAGACGATGA	GGACTGGAA	GACAACACCA	GCCAA	450
mouse	CTGACATCTG	ACCTGCATGT	CTACAACCTGG	ACTGCAGGGG	CAGATGATGG	TGACTGGAA	GATGGCACCA	GCCGA	450
human	TTATCTGCTG	ATCCATATGT	TTACAACCTGG	ACAGCATGGT	CAGAGGACAG	TGACGGGGAA	AATGGCACCG	GCCAA	450
rat	GGCAGCACC	TCAGGTTCCC	CGACGGGAAG	CCCTTCCCTC	GCCCCCACGG	ACGGAAAGAAA	TGGAACCTCG	TCTAC	525
mouse	AGCCAGCATT	TCAGGTTCCC	GGACAGGAGG	CCCTTCCCTC	GCCCCCATGG	ATGGAAGAAA	TGGAGCTTG	TCTAC	525
human	AGCCATCATA	ACGTCTTCCC	TGATGGAAA	CCCTTTCCCTC	ACCACCCCGG	ATGGAGAAGA	TGGAATTTC	TCTAC	525
rat	GTCTTCCACA	CACTTGGTCA	GTATTTCAA	AAAGCTGGTC	AGTGTTCAGC	ACGAGTTTCT	ATAAACACAG	TCAAC	600
mouse	GTCTTCACA	CACTTGGCCA	GTATTTCAA	AAACTGGTC	GGTGTTCAGC	ACGGGTTTCT	ATAAACACAG	TCAAC	600
human	GTCTTCCACA	CACTTGGTCA	GTATTTCCAG	AAATTGGAC	GATGTTCACT	GAGAGTTTCT	GTGAACACAG	CCAAT	600
rat	TTGACAGTTG	GCCCTCAGGT	CATGGAAGTG	ATTGTCTTTC	GAAGACACGG	CCGGGCATAC	ATTCCCATCT	CCAAA	675
mouse	TTGACAGCTG	GCCCTCAGGT	CATGGAAGTG	ACTGTCTTTC	GAAGATACGG	CCGGGCATAC	ATTCCCATCT	CGAAG	675
human	GTGACACTTG	GGCCTCAACT	CATGGAAGTG	ACTGTCTACA	GAAGACATGG	ACGGGCATAT	GTTCCCATCG	CACAA	675
rat	GTGAAAGACG	TGTATGTGAT	AACAGATCG	ATCCCTATAT	TCGTGACCAT	GTACCAGAAG	AATGACCGGA	ACTCG	750
mouse	GTGAAAGATG	TGTATGTGAT	AACAGATCG	ATCCCTGTAT	TCGTGACCAT	GTCCCAGAAG	AATGACAGGA	ACTTG	750
human	GTGAAAGATG	TGTACGTGGT	AACAGATCG	ATTCCTGTGT	TTGTGACTAT	GTTCCAGAAG	AACGATCGAA	ATTCA	750
rat	TCTGATGAAA	CCTTCCTCAG	AGACCTCCCC	ATTTTCTTCG	ATGTCCTCAT	TCACGATCCC	AGTCATTTCC	TCAAC	825
mouse	TCTGATGAGA	CCTTCCTCAG	AGACCTCCCC	ATCGTCTTCG	ATGTCCTCAT	TCATGATCCC	AGCCACTTCC	TCAAC	825
human	TCCGACGAAA	CCTTCCTCAA	AGATCTCCCC	ATTATGTTTG	ATGTCCTGAT	TCATGATCCT	AGCCACTTCC	TCAAT	825
rat	TACTCTGCCA	TTTCCTACAA	GTGGAACCTT	GGGGACAACA	CTGGCCTGTT	TGTCTCCAAC	AATCACACTT	TGAAT	900
mouse	GACTCTGCCA	TTTCCTACAA	GTGGAACCTT	GGGGACAACA	CTGGCCTGTT	TGTCTCCAAC	AATCACACTT	TGAAT	900
human	TATTCTACCA	TTAACCTACAA	GTGGAGCTTC	GGGGATAATA	CTGGCCTGTT	TGTTTCCACC	AATCATACTG	TGAAT	900
rat	CACACGTATG	TGCTCAATGG	AACCTTCAAC	TTAACCTCA	CCGTGAAAC	TGCAGTGGCG	GG-----	-ACCA	966
mouse	CACACTTATG	TGCTCAATGG	AACCTTCAAC	CTAACCTCA	CCGTGAAAC	TGCAGTGGCC	GG-----	-GCCA	966
human	CACACGTATG	TGCTCAATGG	AACCTTCAGC	CTAACCTCA	CTGTGAAAGC	TGCAGCACCA	GGACCTTGTC	CGCCA	975
rat	-TGCC-CC-T	CACCCACACC	TTCGCCTTCT	TCTTCGACTT	CTCCTTC---	---GCCTGCA	TCTTCGCCTT	CA---	1029
mouse	-TGCC-C--T	--CCC--CC	TTCGCCTTCTG	ACTCCGCCTT	CACCTTCAC	TCCGCCCTTA	CCTTCGCCCT	CACCT	1032
human	CCGCCACCAC	CACCCAGACC	TTC-----	-----AA-	-----A	-----	-ACC-		1004
rat	---CCCACAT	TATCAACACC	TAGTCCCTCT	TTAATGCCTA	CTGGCTACAA	ATCCATGGAG	CTGAGTGACA	TTTCC	1101
mouse	TTGCCACAT	TATCAACACC	TAGCCCTCT	TTAATGCCTA	CTGGTTACAA	ATCCATGGAG	CTGAGTGACA	TTTCC	1107
human	-----	-----CACC	----CCTCT	TTAGGACCTG	CTGGTGACAA	CCCCCTGGAG	CTGAGTAGGA	TTCCCT	1059
rat	AATGAAAAC	GCCGAATAAA	CAGATATGGT	TACTTCAGAG	CCACCATCAC	AATTGTAGAT	GGAATCCTAG	AAGTC	1176
mouse	AATGAAAAC	GCCGAATAAA	CAGATATGGC	TACTTCAGAG	CCACCATCAC	AATTGTAGAG	GGGATCCTGG	AAGTC	1182
human	GATGAAAAC	GGCAGATTAAC	CAGATATGGC	CACTTCAAG	CCACCATCAC	AATTGTAGAG	GGAAATCCTAG	AGGTT	1134

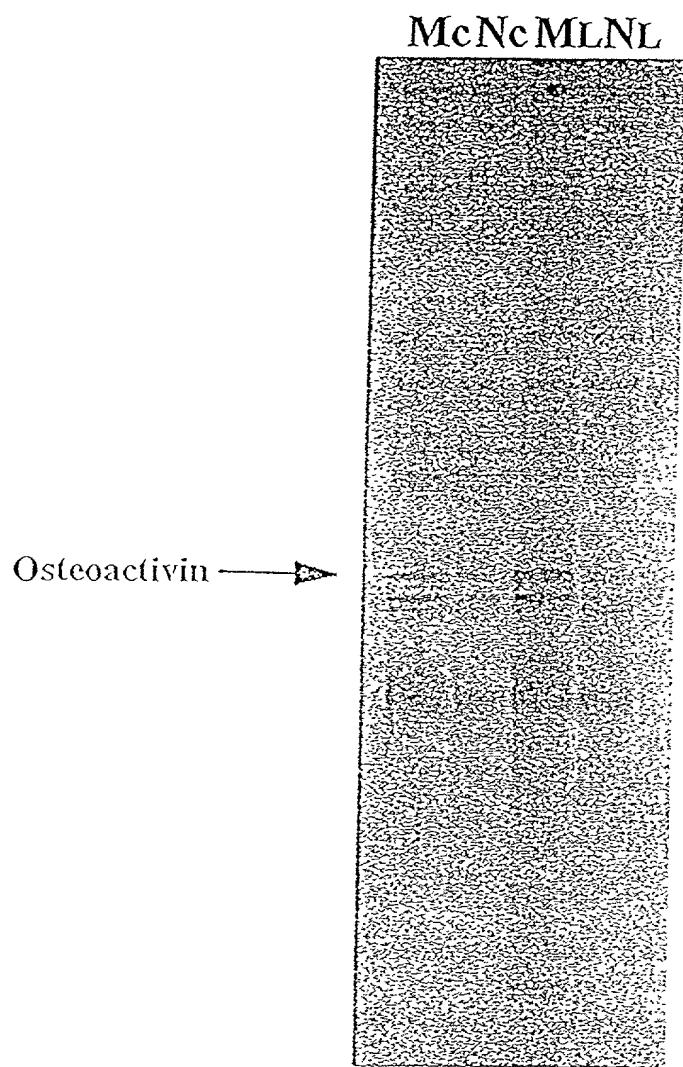
FIGURE 2A

rat	AACATCATCC	AGGTAGCAGA	TGTCCCAATC	CCCACACTGC	AGCCTGACAA	CTCACTGATG	GACTTCATTG	TGACC	1251
mouse	AGCATCATGC	AGATAGCAGA	TGTCCCCATG	CCCACACCGC	AGCCTGCCAA	CTCCCTGATG	GACTTCACTG	TGACC	1257
human	AACATCATCC	AGATGACAGA	CGTCCTGATG	CCGGTGCCAT	GGCCTGAAAG	CTCCCTAATA	GACTTTGTG	TGACC	1209
rat	TGCAAAGGGG	CCACTCCAC	GGAAGCCTGT	ACGATCATCT	CTGACCCAC	CTGCCAGATC	GCCCAGAAC	GGGTG	1326
mouse	TGCAAAGGGG	CCACCCCCAT	GGAAGCCTGT	ACGATCATCT	CCGACCCAC	CTGCCAGATC	GCCCAGAAC	GGGTG	1332
human	TGCCAAGGGG	GCATTCCAC	GGAGGTCTGT	ACCATCATT	CTGACCCAC	CTGCGAGATC	ACCCAGAAC	CAGTC	1284
rat	TGCAGCCCGG	TGGCTGTGGA	TGAGCTGTGC	CTCCCTGTCCG	TGAGGGAGGC	CTTCAATGGG	TCCGGCACGT	ACTGT	1401
mouse	TGCAGCCCTG	TGGCTGTGGA	TGGCTGTGC	CTGCTGTCTG	TGAGAAAGAGC	CTTCAATGGG	TCTGGCACCT	ACTGT	1407
human	TGCAGCCCTG	TGGATGTGGA	TGAGATGTGT	CTGCTGACTG	TGAGACGAAC	CTTCAATGGG	TCTGGGACGT	ACTGT	1359
rat	GTGAATTCA	CTCTGGAGA	CGATGCAAGC	CTGGCCCTCA	CCAGCGCCCT	GATCTCTATC	CCTGGCAAAG	ACCTA	1476
mouse	GTGAATTCA	CTCTGGAGA	TGATGCAAGC	CTGGCCCTCA	CCAGCACCCT	GATCTCTATC	CCTGGCAAAG	ACCCA	1482
human	GTGAACCTCA	CCCTGGGGGA	TGACACAAGC	CTGGCTCTCA	CGAGCACCCCT	GATTTCTGTT	CCTGACAGAG	ACCCA	1434
rat	GGCTCCCTC	TGAGAACAGT	GAATGGTGTC	CTGATCTCCA	TTGGCTGCCT	GGCCATGTTT	GTCACCATGG	TTACC	1551
mouse	GAATCCCTC	TGAGAGCAGT	GAATGGTGTC	CTGATCTCCA	TCGGCTGCCT	GGCTGTGCTT	GTCACCATGG	TTACC	1557
human	GCCTCGCCTT	TAAGGATGGC	AAACAGTGCC	CTGATCTCCG	TTGGCTGCTT	GGCCATATTT	GTCACTGTGA	TCTCC	1509
rat	ATCTTGCTGT	ACAAAAAAC	CAAGACGTAC	AAGCCAATAG	GAAACTGCAC	CAGGAACGTG	GTCAAGGGCA	AAGGC	1626
mouse	ATCTTGCTGT	ACAAAAAAC	CAAGGCATAC	AAGCCAATAG	GAAACTGCC	CAGGAACACG	GTCAAGGGCA	AAGGC	1632
human	CTCTTGGTGT	ACAAAAAAC	CAAGGAATAC	AACCCAATAG	AAAATAGTCC	TGGGAATGTG	GTCAGAAGCA	AAGGC	1584
rat	CTGAGTGTCTT	TTCTCAGCCA	TGAAAAGCC	CCGTTCTCCC	GAGGAGACCG	GGAGAAGGAT	CCACTGCTCC	AGGAC	1701
mouse	CTGAGTGTTC	TCCTCAGTC	CGCGAAAGCC	CCGTTCTTCC	GAGGAGACCA	GGAGAAGGAT	CCATTGCTCC	AGGAC	1707
human	CTGAGTGTCT	TTCTCAACCG	TGCAAAAGCC	GTGTTCTTCC	CGGGAAACCA	GGAAAAGGAT	CCGCTACTC-	---AA	1655
rat	AAGCCATGGA	TGCTCTAA--	-----	-----	-----	-----	-----	-----	1719
mouse	AAGCCAAGGA	CACTCTAA--	-----	-----	-----	-----	-----	-----	1725
human	AAACCAAGAA	---TTTAAAG	GAGTTTCTTA	A	-----	-----	-----	-----	1683

FIGURE 2A, cont'd.

rat	MESLCGVLF	LLLAAGLPLQ	AAKRFRDVLG	HEQYPDHMRE	NNQLRGWSSD	50
mouse	MESLCGVLF	LLLAAGLPLQ	AAKRFRDVLG	HEQYPDHMRE	HNQLRGWSSD	50
human	MECLYYFLGF	LLLAARLPLD	AAKRFHDVLG	NERPSAYMRE	HNQLNGWSSD	50
rat	ENEWDEQLYP	VWRRGEGRWK	DSWEGGRVQA	ALTSDSPALV	GSNITFVVNL	100
mouse	ENEWDEHLYP	VWRRGDGRWK	DSWEGGRVQA	VLTSDSPALV	GSNITFVVNL	100
human	ENDWNEKLYP	VWKRGDMRWK	NSWKGGRVQA	VLTSDSPALV	GSNITFAVNL	100
rat	VFPRCQKEDA	NGNIVYERN	RSDLELASDP	YVYNWTTGAD	DEDWEDNTSQ	150
mouse	VFPRCQKEDA	NGNIVYEKNC	RNDLGLTSDL	HVYNWTAGAD	DGDWEDGTSR	150
human	IFPRCQKEDA	NGNIVYEKNC	RNEAGLSADP	YVYNWTAWSE	DSDGENGTGQ	150
rat	GQHLRFPDGK	PFPRPHGRKK	WNFVYVFHTL	GQYFQKLGQC	SARVSINTVN	200
mouse	SQHLRFPDRR	PFPRPHGWKK	WSFVYVFHTL	GQYFQKLGRC	SARVSINTVN	200
human	SHHNVFPDGK	PFPHHPGWRR	WNFIYVFHTL	GQYFQKLGRC	SVRVSNTAN	200
rat	LTVGPQVMEV	IVFRRHGRAY	IPISKVKDVTY	VI TDQIPIFV	TMYQKNDRNS	250
mouse	LTAGPQVMEV	TVFRRYGRAY	IPISKVKDVTY	VI TDQIPIFV	TMSQKNDRNL	250
human	VTLGPQLMEV	TVYRRHGRAY	VPIAQVKDVTY	VVTDQIPIFV	TMFQKNDRNS	250
rat	SDETFLRDLP	IFFDVLIHDP	SHFLNYS AIS	YKWNFGDNTG	LFVSNNHTLN	300
mouse	SDEIFLRDLP	IVFDVLIHDP	SHFLNDS AIS	YKWNFGDNTG	LFVSNNHTLN	300
human	SDETFLKDL	PIMFDVLIHDP	SHFLNYS TIN	YKWSFGDNTG	LFVSTNHTVN	300
rat	HTYVLNGTFN	FNLTVQTAVP	GPCPSPTPS-	-PSSSTSPSP	ASSPSPTLST	348
mouse	HTYVLNGTFN	LNLTQVTA	GPCPPPS	PPSPSTPPLP	SPSPLPTLST	350
human	HTYVLNGTFS	LNLTQVAAAP	GPCPPPPP--	-----PPRP	-----SK	334
rat	PSPSLMPTGY	KSMELSDISN	ENCRINRYGY	FRATITIVDG	ILEVNI IQVA	398
mouse	PSPSLMPTGY	KSMELSDISN	ENCRINRYGY	FRATITIVEG	ILEVSI MQIA	400
human	PTPSLGPGAD	NPЛЕLSRIPD	ENCQINRYGH	FQATITIVEG	ILEVNI IQMT	384
rat	DVPIPTLQPD	NSLMDFIVTC	KGATPTEACT	IISDPTCQIA	QNRVCSPVAV	448
mouse	DVPMPTPQPA	NSLMDFTVTC	KGATPMEACT	IISDPTCQIA	QNRVCSPVAV	450
human	DVLMPVPWPE	SSLIDFVVTC	QGSIPTEVCT	IISDPTCEIT	QNTVCSPVAV	434
rat	DELCLLSVRR	AFNGSGTYCV	NFTLGDDASL	ALTSALISIP	GKDLGSPRLT	498
mouse	DGLCLLSVRR	AFNGSGTYCV	NFTLGDDASL	ALTSTLISIP	GKDPDSPLRA	500
human	DEMCLLT	TFNGSGTYCV	NLTGDDDSL	ALTSTLISVP	DRDPASPLRM	484
rat	VNGVLISIGC	LAMFVTMVTI	LLYKKHHTYK	PIGNCTRNVV	KGKGLSVFLS	548
mouse	VNGVLISIGC	LAFLVTVMTI	LLYKKHKEYK	PIGNCPRNTV	KGKGLSVLLS	550
human	ANSALISVGC	LAIFVTVSL	LVYKKHKEYN	PIENSPGNVV	RSKGLSVFLN	534
rat	HAKAPFSRGD	REKDPLLQDK	PW--ML	572		
mouse	HAKAPFFRGD	QEKDPLLQDK	PR--TL	574		
human	RAKAVFFPGN	QEKDPLIKNQ	EFKGVS	560		

FIGURE 2B



**FIGURE 3**

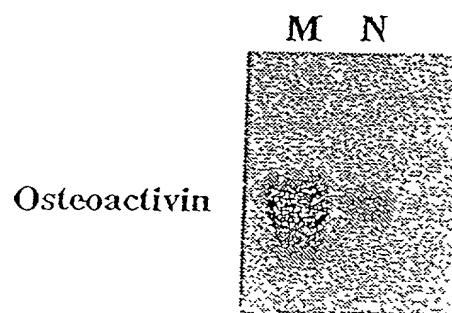


FIGURE 4A

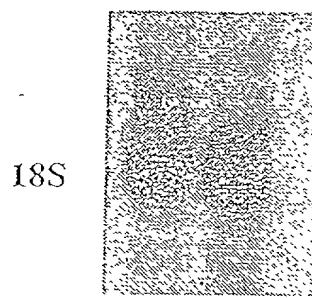
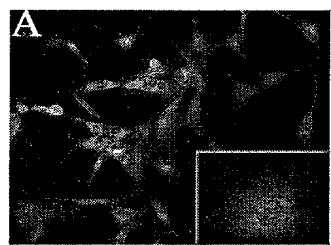


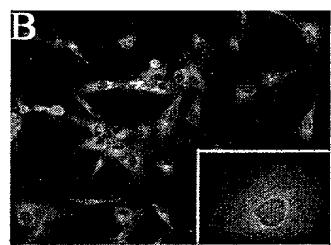
FIGURE 4B



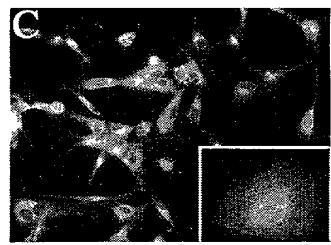
FIGURE 5



**Figure 5A**



**Figure 5B**



**Figure 5C**

## Osteoactivin

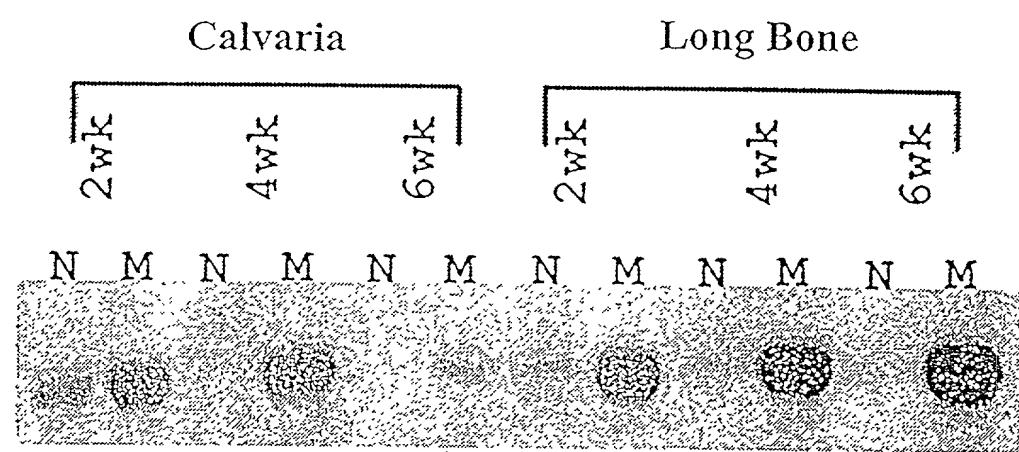


FIGURE 6

FIGURE 7A

Osteoactivin  
18S

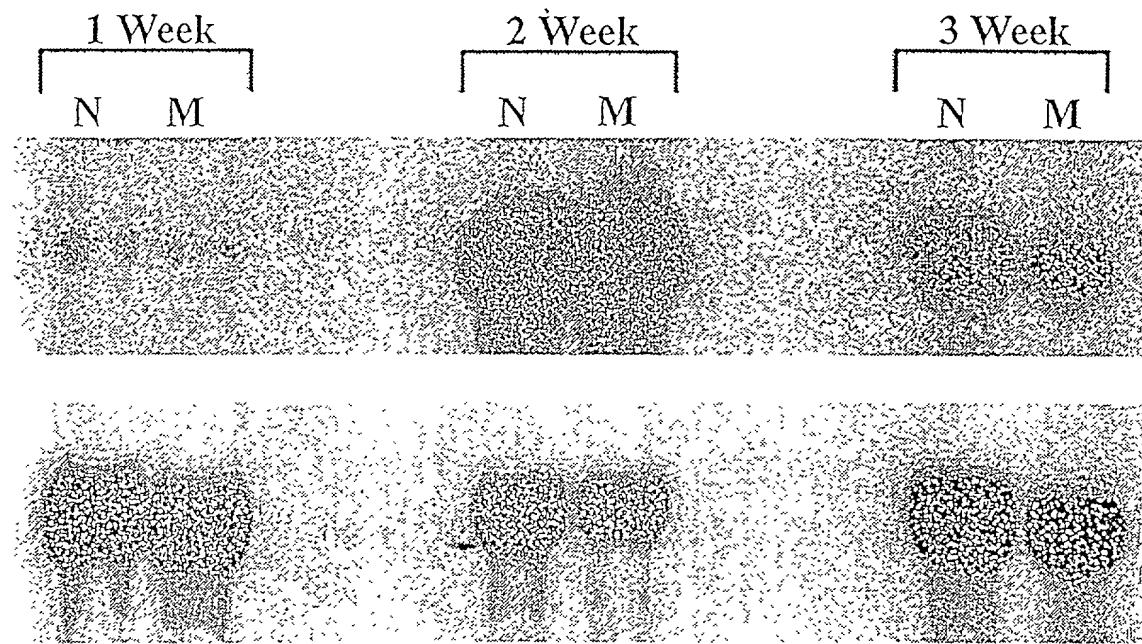


FIGURE 7B

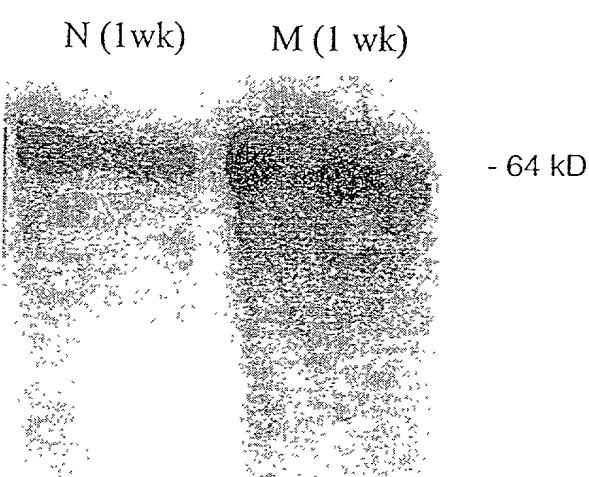
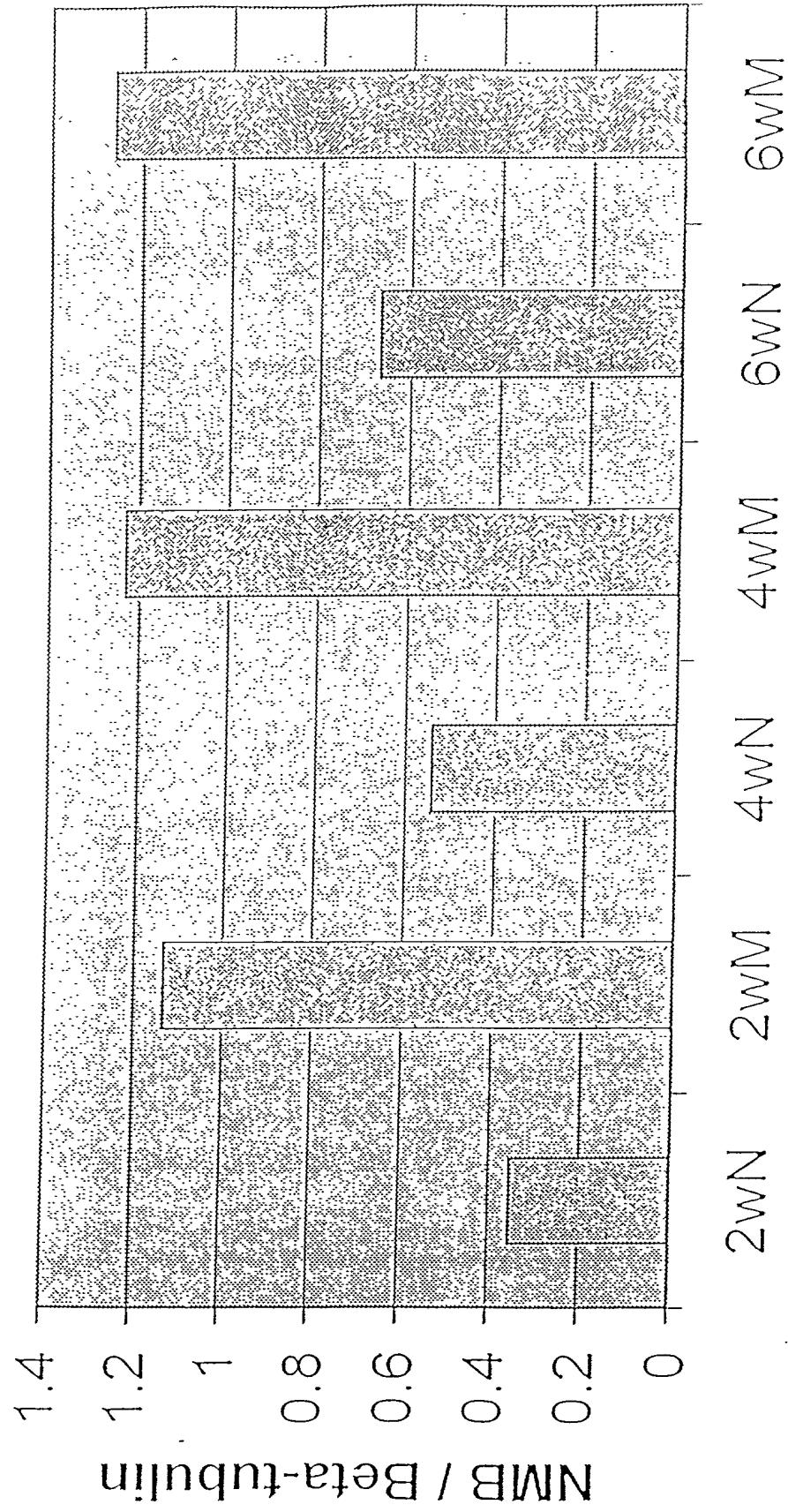


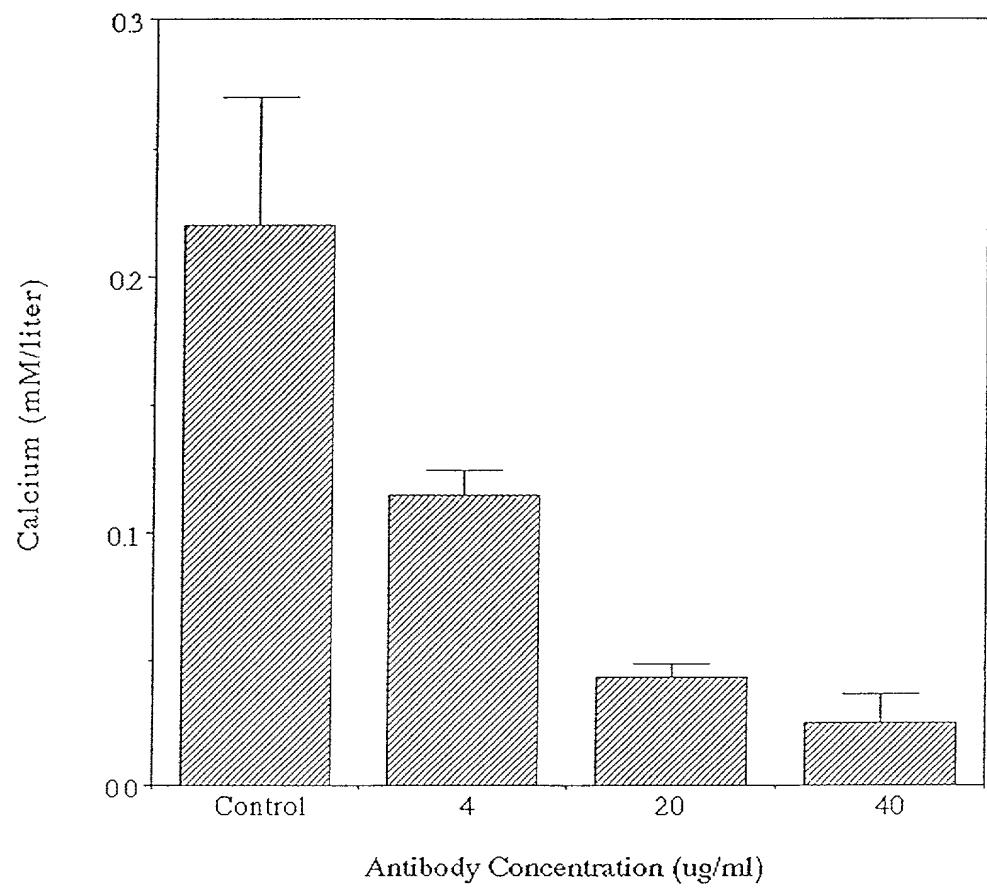
FIGURE 8

## Osteoactivin expression



Long Bone

FIGURE 9



**FIGURE 10**